Application No.: Not Yet Assigned Docket No.: 0171-1188PUS1

AMENDMENTS TO THE CLAIMS

1. (Original) A nonaqueous electrolyte characterized by containing: an ionic liquid which has general formula (1) below and is liquid at not higher than 50°C

$$\begin{bmatrix} R^1 \\ R^2 - X - R^3 \\ R^4 \end{bmatrix}^+ \cdot Y \tag{1}$$

wherein R^1 to R^4 are each independently an alkyl group of 1 to 5 carbons or an alkoxyalkyl group of the formula R'-O- $(CH_2)_n$ - (R' being methyl or ethyl, and the letter n being an integer from 1 to 4), and any two from among R^1 , R^2 , R^3 and R^4 may together form a ring, with the proviso that at least one of R^1 to R^4 is an alkoxyalkyl group of the above formula,

X is a nitrogen atom or a phosphorus atom, and

Y is a monovalent anion; and

an ion-conductive polymer.

2. (Original) A nonaqueous electrolyte which is characterized in that it is obtained by curing a composition containing:

an ionic liquid which has general formula (1) below and is liquid at not higher than 50°C

$$\begin{bmatrix} R^1 \\ R^2 - X - R^3 \\ R^4 \end{bmatrix}^+ \cdot Y \tag{1}$$

wherein R^1 to R^4 are each independently an alkyl group of 1 to 5 carbons or an alkoxyalkyl group of the formula R'-O- $(CH_2)_{n-}$ (R' being methyl or ethyl, and the letter n being an integer from 1 to 4), and any two from among R^1 , R^2 , R^3 and R^4 may together form a ring, with the proviso that at least one of R^1 to R^4 is an alkoxyalkyl group of the above formula,

X is a nitrogen atom or a phosphorus atom, and

Y is a monovalent anion;

- a compound having a reactive double bond on the molecule; and an ion-conductive polymer.
- 3. (Original) The nonaqueous electrolyte of claim 1 or 2 which is characterized by containing a lithium salt.
- 4. (Original) The nonaqueous electrolyte of claim 3 which is characterized in that the lithium salt is LiBF₄, LiPF₆, Li(CF₃SO₂)₂N, LiCF₃SO₃ or LiCF₃CO₂.
- 5. (Currently Amended) The nonaqueous electrolyte of any one of claims 1 to 4 claim 1 or 2, which is characterized in that the ion-conductive polymer is a noncrystalline polymer.
- 6. (Currently Amended) The nonaqueous electrolyte of any one of claims 1 to 5 claim 1 or 2, which is characterized in that the ion-conductive polymer has a relative permittivity at 25°C and 1 MHz of 5 to 50.

7. (Currently Amended) The nonaqueous electrolyte of any one of claims 1 to 6 claim 1 or 2, which is characterized in that the ion-conductive polymer is a thermoplastic polyurethane resin.

- 8. (Currently Amended) The nonaqueous electrolyte of any one of claims 1 to 6 claim 1 or 2, which is characterized in that the ion-conductive polymer is a hydroxyalkyl polysaccharide or a hydroxyalkyl polysaccharide derivative.
- 9. (Currently Amended) The nonaqueous electrolyte of any one of claims 1 to 6 claim 1 or 2, which is characterized in that the ion-conductive polymer is a polymeric compound having an average degree of polymerization of at least 20 and containing polyvinyl alcohol groups of general formula (2) below

$$-\left(\begin{array}{c} CH_2 - CH \\ OH \end{array}\right)_n \tag{2}$$

wherein n is a number from 20 to 10,000, some or all of the hydroxyl groups on the polyvinyl alcohol units being substituted with oxyalkylene-bearing units having an average molar substitution of at least 0.3.

10. (Currently Amended) The nonaqueous electrolyte of any one of claims 1 to 6 claim 1 or 2, which is characterized in that the ion-conductive polymer is a polymeric compound having

an average degree of polymerization of at least 20 and containing polyvinyl alcohol units of general formula (2) below

$$-\left(-CH_2 - \frac{CH}{n}\right)_n \tag{2}$$

wherein n is a number from 20 to 10,000, some or all of the hydroxyl groups on the polyvinyl alcohol units being substituted with cyano-substituted monovalent hydrocarbon groups.

11. (Currently Amended) The nonaqueous electrolyte of any one of claims 1 to 6 claim 1 or 2, which is characterized in that the ion-conductive polymer is a polymeric compound having units of formula (3) and units of formula (4)

$$CH_2OH$$
 $-CH_2CHO$
 $-(3)$

$$\begin{array}{c}
OH \\
| \\
-CH_2CHCH_2O--
\end{array}$$
(4)

wherein at least 10% of the end groups on the molecular chain are capped with one or more groups selected from among halogen atoms, substituted or unsubstituted monovalent hydrocarbon groups, R⁵CO- groups (R⁵ being a substituted or unsubstituted monovalent hydrocarbon group), [[R⁵Si₃-]] R⁵₃Si- groups (R⁵ being the same as above), amino groups, alkylamino groups, H(OR⁶)_m- groups (R⁶ being an alkylene group of 2 to 4 carbons, and m being an integer from 1 to 100) and phosphorus atom-containing groups.

12. (Currently Amended) The nonaqueous electrolyte of any one of claims 1 to 11 claim 1 or 2, which is characterized in that the ionic liquid is liquid at not higher than 25°C.

- 13. (Currently Amended) The nonaqueous electrolyte of any one of claims 1 to 12 claim 1 or 2, which is characterized in that X is a nitrogen atom, R' is methyl, and n is 2.
- 14. (Currently Amended) The nonaqueous electrolyte of any one of claims 1-to 12 claim 1 or 2, which is characterized in that the ionic liquid has general formula (5) below

$$\begin{bmatrix} Me \\ Et - X - CH_2CH_2OR' \\ Et \end{bmatrix}^+ \cdot Y$$
 (5)

wherein R' is methyl or ethyl, X is a nitrogen atom or a phosphorus atom, Y is a monovalent anion, Me stands for methyl and Et stands for ethyl.

- 15. (Currently Amended) The nonaqueous electrolyte of any one of claims 1-to-14 claim 1 or 2, which is characterized in that Y is BF₄, PF₆, (CF₃SO₂)₂N, CF₃SO₃ or CF₃CO₂.
- 16. (Currently Amended) An electrical double-layer capacitor comprising a pair of polarizable electrodes, a separator between the polarizable electrodes and a nonaqueous electrolyte,

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which electrical double-layer capacitor is characterized in that the nonaqueous electrolyte is a nonaqueous electrolyte according to any one of claims 1 to 15 claim 1 or 2.

17. (Currently Amended) A nonaqueous electrolyte secondary cell comprising a positive electrode which contains a lithium-containing double oxide, a negative electrode which contains a carbonaceous material capable of lithium ion insertion and extraction or contains metallic lithium, a separator between the positive and negative electrodes, and a nonaqueous electrolyte;

which nonaqueous secondary cell is characterized in that the nonaqueous electrolyte is a nonaqueous electrolyte according to any one of claims 1 to 15 claim 1 or 2.